Spreadsheets Revision

- The main aim to use spreadsheets is to make calculations on stored values.
- The workbook contains one or more worksheets.
- The worksheet consists of connected rows and columns in calls
- Cells are referred to by column letter and row number.
- For example k5.
- The active cell is the current selected cell
- **Range**: group of cells. Range starts with the left top cell then : then bottom right cell

	A	B	C	D
1		**Mobile phone costs**		
2				
3		Talk2U	X-Mob	Set4Calls
4	Handset	£299.00	£399.00	£349.00
5	Calls (per minute)	£0.10	£0.10	£0.10
6	Texts	£0.05	£0.30	£0.01
7	Data (per MB)	£0.99	£0.80	£1.00

Cells can contain

- Text
- Numbers
- Formulas

Number can be formatted in different ways like

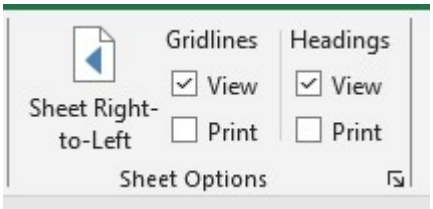
- Short date
- Long date
- Currency
- Percentage
- Time

Merge and centre: groups a range of cells together to make one block.

Wrap text: makes the text appear in the same block of cells.

Borders and shading will make cells appear better.

Gridlines are not printed unless you select the option to print it from Page Layout.



You can hide/unhide columns or rows if needed.

Formulas

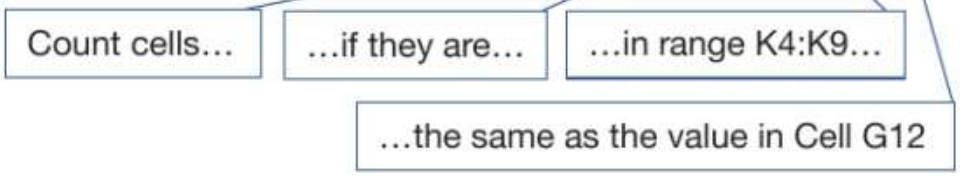
- Basic mathematical operations like + - * /
- Order of operations is (^/*+-
- Fornulas can be copied to any different cell in the workbook. Auto fill will make the same effect
- Copied formulas will have relative reference.
- If you want to formula to have absolute reference, use F4 to have it fixed with $ before you copy the formula to difference cell.

Types of functions

- Mathematical
- Statistical
- Financial
- Logical
- Text
- Date and time

FUNCTION	TYPE	USE	IN FIGURE 19.29	EXAMPLE
SUM	Mathematical	Calculates the **total** of a range of values	Cell F5	=SUM(C5:E5)
PRODUCT	Mathematical	**Multiplies** a range of values	Not used	Not used (see Hint)
AVERAGE	Statistical	Calculates the **mean** of a range of values	Cell G5	=AVERAGE(C5:E5)
MINIMUM	Statistical	Returns the **smallest** value in a range	Cell H5	=MIN(C5:E5)
MAXIMUM	Statistical	Returns the **largest** value in a range	Cell I5	=MAX(C5:E5)

FUNCTION	TYPE	USE	IN FIGURE 19.29	EXAMPLE
COUNT	Statistical	Counts how many cells contain **numbers**	Cell J5	
COUNTA	Statistical	Counts how many cells are **not empty**	Not used	Not used
COUNTIF	Statistical	Counts how many cells **meet some criteria**	Cell H12	=COUNTIF(K$4:K$9,G12)



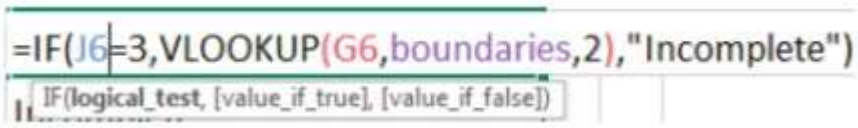
FUNCTION	USE	IN FIGURE 19.29	EXAMPLE
LOOKUP	Finds a value in a row or column range and then moves to another row or column range to return an associated value	K5	=LOOKUP(G5,F12:F15,G12:G15) Looks up… …the value in Cell G5… …in the **array** F12:F15 (the marks column in the boundaries array)… …then moves to the array G12:15… …and returns the value (the Grade from the boundaries array)
VLOOKUP	Looks in the first column of an array and, when the given value is located in the column, moves across the row to return the value of a cell	K6:K9	=VLOOKUP(G6,boundaries,2) Looks up (vertically)… …the value in Cell G6… …in the first column of the array named boundaries (F12:H15)… …then moves across the row to the second column… and returns the value (the Grade from the boundaries array)

The values in the search column must be ordered **ascending**

FUNCTION	USE	IN FIGURE 19.30	EXAMPLE
IF	Performs a logical test of a condition and returns one thing if the result of the test is TRUE. Can be set to return a different thing if the result of the test is FALSE.	K6	=IF(J6=3,VLOOKUP(G6,boundaries,2),"Incomplete") Test if... ...the value in the Cell J6 is equal to 3 (meaning that the student has done all three tests)... ...and if it is... ...do the VLOOKUP (See above)... ...and if it is not... ...print the text 'Incomplete'.

Conditions

CONDITIONAL OPERATOR	MEANING	EXAMPLE OF USE	RESULT OF EXAMPLE USE
=	Equal to	2 = 2	True
>	More than	2 > 2	False
<	Less than	2 < 2	False
>=	More than or equal to	2 >= 2	True
<=	Less than or equal to	2 <= 2	True



Crosssheet referencing

If she referenced cell is in a different sheet, we have to write the sheet name followed by the cell

=**Sheet2**!A5 * 7

You can sort the data in a table by any order ascending or descending

Filter can be used to hide unwated set of data